--Part Two--

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QUEER DECORATIONS.

Imitation Blossoms Placed on the Trees in Paris.

Letter in London Mail.

It was an enthusiastic reception indeed that the Emperor received as he descended the Champs-Elysees, and as he approached the Rond-Point the remarkable effect of the decorated trees could not but be pleasing to him. Indeed, the decorations and the enthusiasm were the measure of one another, and both were the greatest things of their kind ever seen. Whatever may be said of the paper flowers that studded the bare branches of many of the trees as a matter of taste, the motive which placed them there shows the French solicitude that nothing dreary should displease the eye of their guest. In the Rond-Point, where the trees were exposed to the autumn winds, the branches were denuded of their leaves, therefore something had to be done to hide their bareness; and what better thing could be done than to give a touch of spring to the leafless branches? The Parisians could conceive no better idea, and for that matter no better idea could be conceived than this, which they proceeded to carry out with energy and completeness.

Among the many trees there were several chestnuts which had felt the first shock of bad weather, and on these artificial blossoms have been placed, and for each blossom so placed a bunch of grapes has had to be sacrificed. The grapes have been picked off and the stocks used as the framework for the chestnut blossoms. Many ways of making flowers were tried, but this was the only one that seemed to work well. So thousands of bunches of grapes were sacrificed. What became of the grapes is not known. But the French are a thrifty race, and the official classes here are very fond of grapes. So they were probably not altogether wasted. It was suggested that the paper flowers might suffer from the rain. To protect them they were all carefully waxed, the result being that to-day they look as fresh and as natural as at the moment they were put up. Everything has been done with the same completeness and the same disregard for expense.

The Wanderer.

I met a waif i' the hills at close of day.
He begged an alms; I thought to say him nay.
What was he? "Sir, a little dust," said he,
"Which life blows up and down and death will buy."
I gave—for love of heart and hill and tree.
And all the dust that has been and shall be.
—William Canton.

Gaining Wisdom.

Detroit Free Press.

"Any man who knows how much two and two make can solve this whole money problem," declared Hotly.

"I've studied the question for three mon'ths," answered Coldly, "and I wouldn't bet a nickel that two and two make four."

STORY OF A GOLD PIECE

JOURNEY WITH $20 WORTH OF GOLD FROM THE MINE TO THE MINT.

How Bullion Is Bought and Melted and Purified—Eagles Punched from Gold Hoops by Cold Steel.

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PHILADELPHIA, Oct. 23.—In my letters from the Rocky mountains I have described how the atoms of gold and silver are dragged forth from the rocks and by means of chemicals and fire are turned into bullion. I have come to Philadelphia to tell you how the bullion is turned into dollars. The Philadelphia mint is the largest and oldest of the United States. It is said to be one of the finest mints in the world. It coins millions of dollars' worth of gold and silver every year. It has, since its beginning, during the presidency of George Washington, purchased more than a billion and a half dollars' worth of gold. Its vaults now contain almost $200,000,000 in gold and silver, and its wonderful machinery is turning golden bricks into golden eagles. It is coining silver at the rate of thousands of dollars a day, and a walk through its treasure chambers would lead you to think that the United States has a vast surplus of coin, rather than being, as our stump speakers say, in the midst of a money famine.

Let us take a walk through this great money factory and see how Uncle Sam buys gold and silver bullion and turns it into coin. The mint, you know, is in the heart of Philadelphia. It is only a block or so from the City Hall, and not more than a stone's throw from John Wanamaker's big store. Thousands of hungry-eyed, empty-stomached people go by it every day. Fortunes are being carried in and out of it continually, and a few blocks of stone and a plate or two of steel are all that separates its treasures from the hungry mob. It has a single vault which contains more than fifty million standard silver dollars. The money is tied up in bags and stacked against the wall like so much corn, and yet the precious metal is so near the hungry crowd above that, as you stand in the vault, you can almost hear the tread of the passersby upon the pavement. Another vault which I visited had great piles of golden bricks. In one corner of it there was a cord of golden cakes, each of about the size of the ordinary cake of soap, and this pile was big enough to fill the largest dry goods box. I lifted one gold brick, which weighed about forty pounds, and which the melter and refiner told me was worth $10,000. It was not bigger than the average clay brick used in house building, and under it there were a score of boxes filled with bricks of the same metal, some of which were almost twice as large. I was taken into a silver vault, where great quantities of silver bullion were stored, the white metal, it seemed to me, being thrown about like so much lead. I walked through room after room in which these two precious metals were being cut and shaped in various ways, now boiling like water amid the fire of the furnaces, now fashioned like steel under the enormous weight of the rolling mills, until at last they came forth in the shape of the wonderfully beautiful coins of the United States. And, with it all, not an atom of gold or silver was lost. These are the processes we shall see in our trip through the mint.

HOW UNCLE SAM BUYS GOLD.

Our first visit is to the cashier's office. We shall go to the deposit or weighing room, where all the gold and silver first comes, and where it is weighed and actually tested before it is paid for. The room is only a few steps from the front door of the mint. We follow an express messenger, who is carrying a golden brick from the mines of Montana. There he stands at the door. He lifts the brick with his two hands and passes it in through a little window like a teller's window at the bank. We can see through the grating into the room where it goes. The deposit clerk takes it and lays it on one side of a pair of heavy brass scales. The scales do not seem to be delicate, but they will weigh down to the thousandth part of an ounce, and the weight of the brick, to the one-hundredth part of an ounce, is ascertained. The deposit clerk now writes out a receipt, stating the weight, and hands this back to the expressman. The gold brick is now in the hands of the officials of the mint. It will not be paid for, however, until it is known just how fine is the gold of which it is made. Gold is never found pure in the state of nature; it always contains more or less silver, and it is sometimes mixed with copper and lead. Before Uncle Sam buys it he has to know to a cent just how fine it is, and the deposit clerk sends the brick off to be melted. He puts it into an iron box and locks the same with two keys, and it is carried to the deposit melting room. We have letters from the Director of the Mint at Washington to Major Kretz, the superintendent, and throught these the officials admit us, and we follow the brick. We enter a room which looks like an immense kitchen. Into its sides are built four great ranges, the tops of which slope upward at the back at an angle of about 45 degrees until they meet the walls. In the center of each top there is a square hole covered by an iron lid which slides back and forth. Some of the holes are open and we see the coal fire blazing below them. Sunk deep into the coals of each range is a pot as large as a four-gallon crock, and of much the same shape. These are the vessels in which the gold is melted. They are made of black lead, but when not in use they are of the color of clay, and they look not unlike immense flower pots. In the fires they soon become red, and the one in which our gold brick is placed is already at a white heat. A cover is put upon it, the coals are banked about it, and the lid of the furnace is pulled to. In a short time the metal of the brick has become one liquid mass, which the furnace man stirs to and fro until the material within is thoroughly mixed. He then lifts the pot out of the fire with a pair of iron pincers, and runs the flaming metal into iron molds. As soon as it is cooled it is reweighed, and a small piece is cut from each bar and sent to the assayer. The assayer tests the sample and tells Uncle Sam just how much gold, silver and copper the brick contains, and upon this estimate the depositor is paid.

PREPARING THE GOLD FOR COIN.

The gold brick is now turned over to the melter and refiner. This man is one of the most important of the officials of the mint. He must separate the silver and gold and must see that the gold and silver are of the requisite fineness for coin. It is he who manages the 16-to-1 business, and if the political parties could agree upon a method of controlling him there would be no room for discussion. According to our law, our gold coin must be 900 parts fine; that is, in every coin 900 out of the 1,000 parts of which it is made must be pure gold. In order to accomplish this result the melter and refiner must have the pure gold to begin with. He must take all the gold out of the brick, but in such a way as to leave no silver or other metals connected with it. His method is an odd one. He takes the gold brick and melts it with a lot of silver. He does this because the acid which is to take the silver out of the gold will not work well without there is plenty of silver in the mixture. He knows just how much silver is necessary for the right combination, and he adds this amount to our gold brick. The combined metals are next thrown into a vessel containing nitric acid. This acid has a peculiar affinity for silver and for the baser metals. It has no effect upon gold, but it sucks all of the other metals out of the mixture and combines with them, turning them into a liquid which looks not unlike water. The pure gold drops to the bottom of the vessel, while the silver and other metals are left in the solution. The liquor is now drawn off, and the melter and refiner has a lot of pure gold, out of which he make another brick or bar. This metal, however, is too pure for our coins. We find it so soft that we can scratch it with our finger nails, and we are told that coins made of pure gold would not hold their own for a year and that a wedding ring made of pure gold would hardly outlast the honeymoon. It is therefore necessary that the metal be one-tenth alloyed with silver and copper. The alloy hardens the coins and makes them wear. The melter and refiner knows just how much is needed, and he puts this amount with our gold. He takes more gold and more copper in the same proportions and weighs out enough for what is known as a melt or the amount to be melted at one time.

We follow the mass of gold and alloy to the melting room, and soon find ourselves in a vast factory-like place, which is walled with small furnaces, and in which dozens of soot-covered men are busily working. Some are banking up coals about clay pots like those we saw in the furnaces of the deposit melting room. Others are lifting out what seem to be red hot dippers of molten gold and pouring the flaming liquid into iron molds, a little more than a foot long and two inches in thickness. Three of these molds are fastened together, and three golden ingots are thus molded at one time. We stop and watch the process. It makes us think of that of cooking waffles. The molds are first laid open and greased with lard. They are then locked together by iron bands, stood upon end, and the yellow liquid poured into them. The metal hardens as it strikes the cold iron, and a moment later the molds are opened and the ingots are dropped out upon a table to be seized with a pair of pincers and plunged into cold water. They come out steaming hot, but soon cool, and later on we have a chance to handle them. We find that each one of them looks like a chisel or wedge. It is twelve inches long, half an inch thick, and about two inches wide. The width is graduated according to the size of the coin to be made from the ingots. Those we see molded are for twenty-dollar gold pieces, and each ingot is worth, we are told, about $1,400.

LITTLE CHANCE FOR THIEVES.

As we watch the workman ladeling out gold like so much water we notice that now and then a bit of the precious metal splashes out and falls to the floor, and we wonder whether there is not some way by which the employes might steal themselves rich. We ask the melter and refiner whether thefts of small amounts of gold are not common. He replies that such a theft would soon be detected, and shows us how every day this room is charged with every bit of gold that comes into it, and how it must give back as much as it gets. He points to the floor, which is covered with an iron net work of a honeycomb pattern, the cells of which, an inch in diameter, are raised about half an inch above the floor, so that every bit of gold which falls drops within them.

Says he: "No one could pick up a grain of gold out of that network without being seen. Some years ago we had only bare floors, and in one of the mints we found that we were losing gold. The leak could not be discovered, until at last the detectives noticed that one of the furnace men was spending more money than his wages warranted. He was buying real estate and was living at an extravagant rate. He was watched, and it was found that he was in the habit of putting shoemaker's wax upon the soles of his boots. Whenever he saw a bit of gold or silver upon the floor he would carelessly step upon it. The precious metal would sink into the wax and stick to his feet. That night he would scrape it off, get the gold, and come back the next day with a fresh coat of wax for more. With this floor such a thing is not possible. The rooms are swept every day, and the sweepings of this mint amount to about $40,000 a year. We save every bit of the ashes. Our old pots are broken up and remelted, and every bit of gold got out. We have, in fact, a record of almost every atom of gold which comes into the mint, from the time it enters the deposit room until it goes out in coin or bullion."

MAKING GOLD EAGLES.

But let us follow the golden ingots we have just seen drop from the molds. They are of the right standard of fineness for gold double eagles, and it would seem that the process of turning them into money would be simple enough. We have the idea, held by many, that our coins are made by casting, the gold and silver being melted and turned into molds, just as in the making of bullets, save that, when the molds are opened, out drop gold dollars and silver dollars, instead of balls of lead. There was never a greater mistake. Our coins are not molded. They are stamped out of cold metal, and an enormous pressure puts upon their faces the beautiful images of the Goddess of Liberty and the American eagle. The gold ingots, gold chisels, wedges, or whatever you choose to call them, are first rolled between cylinders of steel, so graduated that the ingots grow smaller and smaller as they are pulled through them until at last they reach the thickness of a twenty-dollar gold piece. They also grow longer and longer, and they have now been stretched from one foot to between three and four feet in length. As they come from the rolling machines they look like so many strips of hoop iron, save that they are yellow. They are next carried to what might be called the puncher. You have seen the punchers by which cookies, animal crackers and gingerbread men are made out of dough. Well, it is on the same principle that the yellow disks, out of which the coins are made, are cut out of the strips of metal rolled from the ingots, save that the work here is done by machinery, and a heavy press of steel does the cutting. The strips are run under a vertical steel punch, which cuts round pieces of gold out of them at the rate of about sixty a minute, or at the rate of twenty dollars' worth of gold every second. As the disks are cut out they fall down through a hole into a box below, and the remainder of the yellow strip out of which they are cut is taken away to be melted up to make more ingots. As we look we note that the box under the machine is now filled with these round gold blanks. They have, as yet, no marks upon them. They are not milled, and there are a number of processes through which they must go before they can be turned into money.

In the first place, every one of those gold disks or blanks must be weighed by hand to see that it is of just the right weight before it is stamped. This is done with blanks of both gold and silver, the blanks for the silver dollars being handled again and again to be sure that they are accurate before they are sent to be made into coins.